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AVA-434.3P US.txt
SEQUENCE LISTING

<110> Sizemore, Donata
Tinge, Steven A.
Killeen, Kevin P.

<120> Orally-Administered Live Bacterial Vaccines For Plague

<130> AVA-434.3P US

<140> to be assigned
<141> 2006-06-01

<150> PCT/US2004/041282
<151> 2004-12-09

<150> 60/528,140
<151> 2003-12-09

<150> 60/559,259
<151> 2004-04-02

<150> 60/573,517
<151> 2004-05-22

<150> 60/610,474
<151> 2004-09-16

<160> 14

<170> PatentIn version 3.3

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cctaaggtaa acggtgagaa ctttgtgggg gatgacgtcg tcttggctac gggcagccag 360
gatttcttg ttcgctcaat tggttccaaa ggcggtaaac ttgcagcagg taaatacact 420
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35 40 45

Leu Gly Gly Tyr Lys Thr Gly Thr Thr Ser Thr Ser Val Asn Phe Thr
50 55 60

Asp Ala Ala Gly Asp Pro Met Tyr Leu Thr Phe Thr Ser Gln Asp Gly
65 70 75 80

Asn Asn His Gln Phe Thr Thr Lys Val Ile Gly Lys Asp Ser Arg Asp
85 90 95

Phe Asp Ile Ser Pro Lys Val Asn Gly Glu Asn Leu Val Gly Asp Asp
100 105 110

Val Val Leu Ala Thr Gly Ser Gln Asp Phe Val Arg Ser Ile Gly
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gataaaaata tagatatttc cattaaatat gatcccagaa aagattcgga ggttttgcc	180
aatagagtaa ttactgatga tatcgaatttgc tcctagctta ttttctaccc	240
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gattcaatga atcatcatgg tgatgcccgt agcaagttgc gtgaagaatt agctgagctt	480
accgcccgaat taaagattta ttcatgttattt caagccgaaa ttaataagca tctgtctagt	540

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Lys Tyr Asp Pro Arg Lys Asp Ser Glu Val Phe Ala Asn Arg Val Ile		
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Thr Asp Asp Ile Glu Leu Leu Lys Ile Leu Ala Tyr Phe Leu Pro			
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Asp Arg Ile Asp Asp Asp Ile Leu Lys Val Ile Val Asp Ser Met Asn		
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His His Gly Asp Ala Arg Ser Lys Leu Arg Glu Glu Leu Ala Glu Leu			
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His Leu Ser Ser Ser Gly Thr Ile Asn Ile His Asp Lys Ser Ile Asn
180 185 190

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195 200 205

Ala Ser Ala Glu Tyr Lys Ile Leu Glu Lys Met Pro Gln Thr Thr Ile
210 215 220

Gln Val Asp Gly Ser Glu Lys Lys Ile Val Ser Ile Lys Asp Phe Leu
225 230 235 240

Gly Ser Glu Asn Lys Arg Thr Gly Ala Leu Gly Asn Leu Lys Asn Ser
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Tyr Ser Tyr Asn Lys Asp Asn Asn Glu Leu Ser His Phe Ala Thr Thr
260 265 270

Cys Ser Asp Lys Ser Arg Pro Leu Asn Asp Leu Val Ser Gln Lys Thr
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gttaacttta cagatgccgc gggtgatccc atgtacttaa catttacttc tcaggatgga 240
aataaccacc aattcactac aaaagtgatt ggcaggatt ctagagattt tgatatctct 300
cctaaggtaa acggtgagaa ctttgtggg gatgacgtcg tcttgctac aggcagccag 360

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Met Asp Asn Gly Asn Ile Asp Thr Glu Leu Leu Val Gly Thr Leu Thr
35 40 45

Leu Gly Gly Tyr Lys Thr Gly Thr Thr Ser Thr Ser Val Asn Phe Thr
50 55 60

AVA-434.3P US.txt

Asp Ala Ala Gly Asp Pro Met Tyr Leu Thr Phe Thr Ser Gln Asp Gly
65 70 75 80

Asn Asn His Gln Phe Thr Thr Lys Val Ile Gly Lys Asp Ser Arg Asp
85 90 95

Phe Asp Ile Ser Pro Lys Val Asn Gly Glu Asn Leu Val Gly Asp Asp
100 105 110

Val Val Leu Ala Thr Gly Ser Gln Asp Phe Phe Val Arg Ser Ile Gly
115 120 125

Ser Lys Gly Gly Lys Leu Ala Ala Gly Lys Tyr Thr Asp Ala Val Thr
130 135 140

Val Thr Val Ser Asn Gln Glu Phe Met Ile Arg Ala Tyr Glu Gln Asn
145 150 155 160

Pro Gln His Phe Ile Glu Asp Leu Glu Lys Val Arg Val Glu Gln Leu
165 170 175

Thr Gly His Gly Ser Ser Val Leu Glu Glu Leu Val Gln Leu Val Lys
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Asp Lys Asn Ile Asp Ile Ser Ile Lys Tyr Asp Pro Arg Lys Asp Ser
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Glu Val Phe Ala Asn Arg Val Ile Thr Asp Asp Ile Glu Leu Leu Lys
210 215 220

Lys Ile Leu Ala Tyr Phe Leu Pro Glu Asp Ala Ile Leu Lys Gly Gly
225 230 235 240

His Tyr Asp Asn Gln Leu Gln Asn Gly Ile Lys Arg Val Lys Glu Phe
245 250 255

Leu Glu Ser Ser Pro Asn Thr Gln Trp Glu Leu Arg Ala Phe Met Ala
260 265 270

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275 280 285

Lys Val Ile Val Asp Ser Met Asn His His Gly Asp Ala Arg Ser Lys
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Leu Arg Glu Glu Leu Ala Glu Leu Thr Ala Glu Leu Lys Ile Tyr Ser
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Tyr Thr Asp Glu Glu Ile Phe Lys Ala Ser Ala Glu Tyr Lys Ile Leu
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Glu Lys Met Pro Gln Thr Thr Ile Gln Val Asp Gly Ser Glu Lys Lys
370 375 380

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Ala Leu Gly Asn Leu Lys Asn Ser Tyr Ser Tyr Asn Lys Asp Asn Asn
405 410 415

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31